

#### REMARKS

Claims 3, 10, 11, 13 and 15 currently appear in this application. The Office Action of August 22, 2007, 2007, has been carefully studied. These claims define novel and unobvious subject matter under Sections 102 and 103 of 35 U.S.C., and therefore should be allowed. Applicant respectfully requests favorable reconsideration, entry of the present amendment, and formal allowance of the claims.

#### The Amendment

Claims 1, 2, 4-9 and 14 have been cancelled. Claim 3 has been written in independent form. Claim 10 has been amended to conform to amended claim 3. Claim 11 has been amended to limit "a saccharide-transferring enzyme" to -a saccharide-transferring enzyme except for  $\alpha$ -isomaltosyl-transferring enzyme--and to recite -glycosyl donor(s)--and -acceptors--, and to depend from claim 3. Claim 13 has been amended by incorporating therein the subject matter of claim 14 and to define -a composition with comprises 3- $\alpha$ -glucosyl  $\alpha,\alpha$ -trehalose of claim 3--.

#### Specification

The specification has been amended to remove bold and underlining from the section titles. Additionally, the

specification has been amended to correct grammatical and spelling errors.

#### Art Rejections

Claims 4 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Kubota et al., U.S. 7,192, 746.

Claims 4 and 5 have been cancelled so this rejection is now moot.

Claims 1, 2, 7-9, 11, 13 and 14 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kubota.

Claims 1, 2, 7-9 and 14 have been cancelled, so the rejection of these claims is moot.

Claim 11 is been amended to limit the saccharide-transferring enzyme to a saccharide-transferring enzyme except for  $\alpha$ -isomaltosyl-transferring enzyme. The optional other saccharides have been limited to glycosyl donors and 3- $\alpha$ -glucosyl  $\alpha$ , $\alpha$ -trehalose to "acceptors." It is respectfully submitted that the method of claim 11 is distinct from the method of Kubota.

Claim 13 has been amended by incorporating the subject matter of claim 14 and to define a composition which comprises 3- $\alpha$ -glycosyl  $\alpha$ , $\alpha$ -trehalose of claim 3. It is respectfully submitted that the composition as defined in

amended claim 13 is distinct from the composition as disclosed by Kubota.

Claims 1-4, 6, 10 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maruta et al., U.S. 6,017,899 in view of Kubota.

Claims 1, 2, 4, 6 and 14 have been cancelled so the rejection is moot with respect to those claims.

The rejection of claims 3, 10, 13 and 15 is respectfully traversed. The Examiner states that Maruta discloses  $\alpha$ -glucosyl  $\alpha,\alpha$ -trehalose and  $\alpha$ -maltosyl  $\alpha,\alpha$ -trehalose, methods for producing them, and compositions including them. The Examiner further states that Kubota teaches the methods of making 3- $\alpha$ -glycosyl  $\alpha,\alpha$ -trehalose, a 3- $\alpha$ -glycosyl  $\alpha,\alpha$ -trehalose, and therefore it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the teaching of Kubota to the method disclosed by Maruta.

First, it should be pointed out that the Examiner's understanding that Kubota teaches the method for making 3- $\alpha$ -isomaltosyl  $\alpha,\alpha$ -trehalose. A 3- $\alpha$ -glycosyl  $\alpha,\alpha$ -trehalose, is not correct. Kubota only recites that "a glycosyl-transferred product" was produced when  $\alpha$ -isomaltosyl-transferring enzyme was allowed to act on partial starch hydrolysate in the presence of trehalose as an acceptor. Kubota did not disclose

the structure of "glycosyl-transferred products." Therefore, it is impossible to deduce from Kubota that the "glycosyl-transferred product" is 3- $\alpha$ -maltosyl  $\alpha,\alpha$ -trehalose. It should be noted that it was not known before the present invention was made that 3- $\alpha$ -isomaltosyl  $\alpha,\alpha$ -trehalose is produced when  $\alpha$ -isomaltosyl-transferring enzyme is allowed to act on partial starch hydrolysate in the presence of trehalose as an acceptor.

Furthermore, claims 3, 10, 13 and 15 recite not 3- $\alpha$ -isomaltosyl  $\alpha,\alpha$ -trehalose, but rather, 3- $\alpha$ -glucosyl  $\alpha,\alpha$ -trehalose and compositions containing the same. 3- $\alpha$ -glucosyl  $\alpha,\alpha$ -trehalose is produced from 3- $\alpha$ -isomaltosyl  $\alpha,\alpha$ -trehalose by the action of glucoamylase. Neither Kubota nor Maruta teaches the process for producing 3- $\alpha$ -glucosyl  $\alpha,\alpha$ -trehalose by the enzymatic reduction of glucoamylase.

In addition,  $\alpha$ -glucosyl  $\alpha,\alpha$ -trehalose and 3- $\alpha$ -malt  $\alpha,\alpha$ -trehalose disclosed in Kubota comprising  $\alpha$ -1,4 linkage. In contrast thereto, the 3- $\alpha$ -glycosyl  $\alpha,\alpha$ -trehalose claimed herein comprises  $\alpha$ -1,3 linkage.

Neither Kubota nor Maruta, alone or in combination, suggests 3- $\alpha$ -glucosyl  $\alpha,\alpha$ -trehalose and a composition comprising the same. It is respectfully submitted that claims 3, 10, 13 and 15 are unobvious over Kubota in view of Maruta.

Appln. No. 10/565,083  
Amd. dated December 21, 2007  
Reply to Office Action of August 22, 2007

Reconsideration and withdrawal of the rejections are respectfully solicited.

In view of the above, it is respectfully submitted that the claims are now in condition for allowance, and favorable action thereon is earnestly solicited.

Respectfully submitted,

BROWDY AND NEIMARK, P.L.L.C.  
Attorneys for Applicant

By: /Anne M. Kornbau/  
Anne M. Kornbau  
Registration No. 25,884

AMK:srd  
Telephone No.: (202) 628-5197  
Facsimile No.: (202) 737-3528  
G:\BN\S\SUMA\Nishimoto8\Pto\2007-12-21Amendment.doc